

DaimlerChrysler AG

Cover arrangement for a motor vehicle

5

The invention relates to a cover arrangement for a motor vehicle, as claimed in the preamble to patent claim 1.

10 Such a cover arrangement is described in German patent application 103 207 42.2.

In that cover arrangement, an elastically mounted disk attached to the pivotably movable cover surmounts the 15 gap between the pivotably movable cover and the adjacent connection construction element. In order that a secure jamming protection for the hand of an operator is provided between the prominent disk and the underlying surface of the connection construction 20 element - for example, during closing of the pivotably movable cover - the disk is elastically mounted on the pivotably movable cover. Accordingly, if, due to an operating error on the part of the operator when closing the pivotably movable cover, his or her hand 25 were to find itself between the disk and the surface of the connection construction element, then precautionary measures are available to ensure that no injuries arise therefrom.

30 The invention tackles the problem of providing an elastic mounting of the disk which is simpler in design.

35 This object is achieved in a cover arrangement of the generic type by a realization according to the characterizing features of patent claim 1.

Advantageous and expedient embodiments are the subject of the subclaims.

The invention is based on the general notion of supporting the disk, which can be an ornamental disk, by a connecting element configured as a simply 5 constructed spring clamp, this connecting element being easily fastenable to the parts to be connected.

In order to prevent damage to the spring mechanism should the disk tilt, the possible tilt angle is 10 limited by stop means. The tilt angle is designed such that, in particular, fingers of an operator cannot get jammed in an injury-provoking manner. The tilt angle can be chosen, in particular, such that, as a result of an elastic tilting up of the disk, a clearance of at 15 least 23 mm remains relative to the assigned undersurface on the adjacent connection construction element.

The whole of the region which is altogether covered by 20 the disk in two mutually adjoining construction elements, namely the pivotably movable cover, on the one hand, and the adjacent connection construction element, on the other hand, can be configured, in particular, as a recess, over which the disk protrudes 25 only slightly outward.

An illustrative embodiment explained in greater detail below is represented in the drawing, in which:

30 fig. 1 shows a diagrammatic rear view of a motor vehicle configured as a van, having the cover arrangement according to the invention,

35 fig. 2 shows a perspective view, from below, of an ornamental disk forming the cover arrangement according to fig. 1, with a spring clamp fastened to said ornamental disk,

fig. 3 shows the bottom side of the ornamental disk in elevation, without spring clamp,

5 fig. 4 shows a perspective view of the spring clamp,

fig. 5a shows a section through the ornamental disk along the line V-V in fig. 1, in the usage position thereof,

10 fig. 5b shows an identical section according to 5a, yet with the ornamental disk deflected out of its usage position.

15 In fig. 1 a motor vehicle configured as a van can be seen in diagrammatic rear view, which motor vehicle comprises a cover arrangement having a pivotably movable cover in the form of a first leaf door 1 and a connection construction element in the form of a second leaf door 2. The two leaf doors 1, 2 are respectively 20 configured such that they can be pivoted in opposite directions relative to one another about an approximately vertically running swivel axis SA disposed in the corner region between the rear side and side wall of the vehicle. The two leaf doors 1, 2 lie 25 flushly adjacent to one another with the formation of a gap 3. In the illustrative embodiment shown, the gap 3 runs essentially in straight and vertical extent.

30 Viewed together with figs 2 to 5, it can be seen how an ornamental disk 4 is disposed in a recess 5 formed by the two leaf doors 1, 2 and there covers the gap 3.

35 In the illustrative embodiment, the two leaf doors 1, 2 are conventionally formed in metal-plate shell construction. The first leaf door 1 here comprises a marginal region lying adjacent to the second leaf door 2. Beneath a door handle 6 disposed on the first leaf door 1, the ornamental disk 4 is provided in the

aforementioned recess 5. The ornamental disk 4, which can be configured outwardly as a marque, for example as a Mercedes star, is thus disposed in a central region between the leaf doors 1 and 2. The actually straight 5 course of the gap 3 is hereupon altered by the ornamental disk 4 in the area of its placement.

The ornamental disk 4 is fastened by a U-shaped spring clamp 7 in a region of the recess 5 which is assigned 10 to the first leaf door 1.

At least the rear-side region of the ornamental disk 4, which region is facing the recess 5, can consist of plastic and can be produced by the injection molding 15 process.

The spring clamp 7 is connected to the disk 4 by a snap fastening. For this purpose, as snap-fastening means on the rear side of the disk 4, a yoke 8 is provided, by 20 which one of the two U-arms of the spring clamp 7 is displaceable in a slide fit. As additional snap-fastening means, on the rear side of the disk 4 outside the yoke 8, yet within the path of displacement defined by the latter for the arm of the spring clamp 7, a pin 25 9 is molded on. On the spring clamp 7, one of the two U-arms serves as snap-fastening means, in whose free end region a cutout 10, complementarily matched to the pin 9, is provided. The snap fastening is closed by that U-arm of the spring clamp 7 which has the cutout 30 10 being pushed through the yoke 8 until the pin 9 snaps into the cutout 10. To enable a snap-locking to take place, the U-arm of the spring clamp 7 must be slid onto the pin 9 under elastic pretensioning. The U-arm can then snap by means of the cutout 10 on the pin 35 9, with the relief of its pretensioning. When the U-arm is slid through the yoke 8, in order to pretension this arm to obtain the snap fastening, an inclined bar 11 is molded onto the free end of the U-arm. The bar 11 thus

serves as a "lead-in accessory", so that the spring clamp 7, with its arm containing the cutout 10, can be slid over the pin 9 as easily as possible.

- 5 The spring clamp 7 possesses at its closed end a theoretical rotational axis 12. About this rotational axis 12, the ornamental disk 4 can be tilted or pivoted by elastic deformation.
- 10 The overall possible tilt angle about which the ornamental disk 4 can be tilted is limited. This limitation is achieved by stops, namely stops 13 on the ornamental disk 4 and stops 14 which are molded onto that end of the spring clamp 7 which is fixedly connected to the first door leaf 1. The size of the possible tilt angle is designed such that, when the first door leaf 1 is closed with the door leaf 2 already closed, that region of the ornamental disk 4 which protrudes from the first door leaf 1 in the direction of the second door leaf 2 can be tilted up to the extent that, for example, no finger of an operator can get jammed between the ornamental disk 4 and the recess 5. Thus, as an appropriate safety distance s, one of at least 23 mm, for instance, can be achieved
- 15 through an appropriately chosen tilt angle limitation.
- 20
- 25